

REMARKS

This is a full and timely response to the outstanding nonfinal Office Action mailed February 24, 2003. Reconsideration and allowance of the application and presently pending claims 1-23, as amended, are respectfully requested.

1. Present Status of Patent Application

Upon entry of the amendments in this response, claims 1-23 remain pending in the present application. More specifically, claims 10 and 14 are directly amended. These amendments are specifically described hereinafter. It is believed that the foregoing amendments add no new matter to the present application.

2. Response to Rejection of Claims 10-14 Under 35 U.S.C. §112, Second Paragraph

In the Office Action, claims 10-14 are rejected under 35 U.S.C. §112, second paragraph. More specifically, the Office Action alleges an insufficient antecedent basis for the limitation "the location" in claim 10, and an insufficient antecedent basis for the limitation "said plurality of views" in claim 14. Claims 11-13 are objected to because they incorporate the alleged antecedent basis deficiency of claim 10.

Applicants have amended claims 10 and 14 to correct the antecedent basis of the above-described limitations. Accordingly, the rejection issue to claims 10-14 under 35 U.S.C. §112, second paragraph has been overcome.

Applicants wish to clarify that the amendments to claims 10 and 14 are not made in response to any substantive rejection made by the Examiner during prosecution of the instant case based upon cited art of record. Furthermore, the amendments to claims 10 and 14 do not narrow the scope of claims 10 and 14 in any manner.

3. Response to Rejection of Claims 1-12 Under 35 U.S.C. §103

In the Office Action, claims 1-12 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Diehl et al.* (U.S. Patent 6,219,725), hereinafter *Diehl*, in view of *Deering et al.* (U.S. Patent 5,578,813), hereinafter *Deering*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as obvious based upon a combination of references, the cited combination of references must

disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claim 1

Applicants respectfully submit that claim 1 is allowable for at least the reason that the proposed combination of *Diehl* in view of *Deering* does not disclose, teach, or suggest at least the feature of a memory having a memory region, the “memory region subdivided into a plurality of sub-regions” as recited in claim 1.

Diehl does not disclose, teach, or suggest a memory region subdivided into a plurality of sub-regions. *Diehl* appears to disclose, at most, a system where a “graphics memory 250 is partitioned into a number of rectangular regions of contiguous memory locations 252, 254, each having an associated height (in terms of rows) and width (in terms of columns). For example, rectangular region 252 may be allocated as a frame buffer representing the imaginable area of a display screen, while rectangular region 254 may be allocated as a frame buffer representing a particular windowing area on the display screen.” (*Diehl*, Col. 3, Lines 30-40). Nowhere does *Diehl* disclose, teach, or suggest that either the rectangular region 252 or the rectangular region 254 are subdivided into a plurality of sub-regions. Thus, *Diehl* fails to disclose, teach or suggest every element of the Applicants’ claimed invention.

Deering also fails to disclose, teach, or suggest a memory region subdivided into a plurality of sub-regions. *Deering* appears to disclose, at most, a graphic subsystem 86 that “comprises a set of FBRAM chips 71-82” (*Deering*, Col. 5, lines 39-41 and FIG. 1). Nowhere in *Deering* do any of the individual FBRAM chips 71-82 have a memory region that is subdivided into a plurality of sub-regions. Thus, *Deering* fails to disclose, teach or suggest every element of the Applicants’ claimed invention.

Accordingly, the proposed combination of *Diehl* in view of *Deering* does not disclose, teach or suggest at least the claimed limitations of a “memory region subdivided into a plurality of sub-regions” as recited in claim 1. Therefore, a prima facie case establishing an obviousness rejection by *Diehl* in view of *Deering* has not been made. Thus, claim 1 is not obvious under proposed combination of *Diehl* in view of *Deering*, and for at least this reason alone the rejection should be withdrawn.

Furthermore, Applicants respectfully submit that claim 1 is allowable for at least the reason that the proposed combination of *Diehl* in view of *Deering* does not disclose, teach, or suggest at least the feature of a controller “designed to write **clear data** concurrently to each one of said plurality of sub-regions” (emphasis added) as recited in claim 1. The proposed combination of *Diehl* in view of *Deering* does not disclose, teach, or suggest at least writing clear data to each one of a plurality of sub-regions of a region of memory for at least two reasons. First, there is no reference whatsoever to any type of clear data in either *Diehl* or *Deering*. Second, there are no sub-regions to write the clear data to in either *Diehl* or *Deering*. Thus, the proposed combination of *Diehl* in view of *Deering* fails to disclose, teach or suggest every element of the Applicants’ claimed invention.

Accordingly, the proposed combination of *Diehl* in view of *Deering* does not disclose, teach or suggest at least the claimed limitations of a controller “designed to write **clear data** concurrently to each one of said plurality of sub-regions” (emphasis added) as recited in claim 1. Therefore, a prima facie case establishing an obviousness rejection by *Diehl* in view of *Deering* has not been made. Thus, claim 1 is not obvious under proposed combination of *Diehl* in view of *Deering*, and for at least this reason alone the rejection should be withdrawn.

Also, Applicants respectfully submit that claim 1 is allowable for at least the reason that the proposed combination of *Diehl* in view of *Deering* does not disclose, teach, or suggest at least the feature of a controller “designed to write clear data **concurrently** to each one of said plurality of sub-regions” (emphasis added) as recited in claim 1. The Office Action recognizes that *Diehl* “did not disclose that the controller is designed to write clear data concurrently to each one of said plurality of sub-region(s)” (Page 3, Paragraph 9). Thus, *Diehl* fails to disclose, teach or suggest every element of the Applicants’ claimed invention.

Deering appears to disclose, at most, that the “rendering controller 70 performs concurrent operations to the frame buffer 86 by launching operations to different levels of the memory hierarchy” (*Deering*, Col. 10, lines 36-38). However, the frame buffer 86 is comprised of a plurality of FBRAM chips 71-82 (*Deering*, FIG. 1). “Each FBRAM chip 71-82 includes circuitry that enables concurrent operations involving the DRAM array, the SRAM pixel buffer, the pixel ALU, and an internal set of video buffers” (*Deering*, Col. 6, lines 38-47). The process of concurrently writing to a

plurality of different memories (FBRAM chip 71-82) is quite different from the process of writing “clear data *concurrently* to each one of said plurality of sub-regions” (emphasis added) of the single memory region (residing in one memory), as recited in claim 1.

Accordingly, the proposed combination of *Diehl* in view of *Deering* does not disclose, teach or suggest at least the claimed limitations of a controller “clear data *concurrently* to each one of said plurality of sub-regions” (emphasis added) as recited in claim 1. Therefore, a prima facie case establishing an obviousness rejection by of *Diehl* in view of *Deering* has not been made. Thus, claim 1 is not obvious under proposed combination of *Diehl* in view of *Deering*, and for at least this reason alone the rejection should be withdrawn.

b. Claims 2-12

Because independent claim 1 is allowable over the proposed combination of *Diehl* in view of *Deering*, dependent claims 2-12 are allowable as a matter of law for at least the reason that the dependent claims 2-12 contain all elements of their respective independent base claim 1. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

4. Response to Rejection of Claims 13-23 Under 35 U.S.C. §103

In the Office Action, claims 13-23 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Diehl*, in view of *Deering*, in view of *Maeda* (U.S. Patent 6,067,382), hereinafter *Maeda*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claims 13 and 14

Because independent claim 1 is allowable over the proposed combination of *Diehl* in view of *Deering*, dependent claims 13 and 14 are allowable as a matter of law for at least the reason that the dependent claims 13 and 14 contain all elements of their

respective independent base claim 1. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

b. Claim 15, 20 and 21

Applicants respectfully submit that independent claims 15, 20 and 21 are allowable for at least the reason that the proposed combination of *Diehl* in view of *Deering*, in further view of *Maeda*, does not disclose, teach, or suggest at least the feature of “a location of a region of memory”, upon which “subdividing said memory region into a plurality of sub-regions; and writing said clear data concurrently to each of said plurality of sub-regions” occurs, as recited in claims 15, 20 and 21.

The Examiner is respectfully referred above to the arguments for allowability of claim 1 demonstrating that *Diehl* and *Deering*, alone or in combination, do not disclose, teach, or suggest the above-recited features of claims 15, 20 and 21.

Nor does *Maeda* disclose, teach, or suggest the above-recited features of claims 15, 20 and 21. The Office Action alleges that *Maeda* “disclosed a processor to determine dimension and a position of at least one image on said graphic display device, wherein said at least one image is to be cleared (col. 24, lines 34-35; col. 29, lines 10-15; lines 23-40 and col. 32, lines 58-65)” (at page 6 of the Office Action). However, there is no disclosure of the feature of “a location of a region of memory”, comprising the steps of “subdividing said memory region into a plurality of sub-regions; and writing said clear data concurrently to each of said plurality of sub-regions.”

Maeda discloses “prior to processing, the CPU 1115 clears the contents of a frame memory 101” (*Maeda*, Col. 24, Lines 34-35). Clearing the contents of frame memory 101 is not the same as clearing the plurality of sub-regions as recited in claim 15 because the entire memory 101 is cleared in *Maeda*.

Similarly, *Maeda* discloses that “when it is determined that the entire color multi-valued image data is to be JPEG-encoded, the coding method determination unit 1112 directs the region segmentation unit 102 to clear the content of the region information memory 125, i.e., to clear all of the segmented regions” (*Maeda*, Col. 29, Lines 10-15). Clearly, the *Maeda* memory 125 is entirely cleared, not a plurality of sub-regions as recited in claims 15, 20 and 21.

Maeda further discloses that “prior to the processing, the CPU 1115 initializes an address comparator 222 and MMR encoder 223. Also, the CPU 1115 clears the code

buffer 1208. Subsequently, the CPU 1115 inputs the positions and sizes of all the continuous gradation regions from the region information memory 125 to the address comparator 222 via a terminal 220. After that, the CPU 1115 sequentially reads out pixel data of the binary image data from the frame memory 203” (*Maeda*, Col. 32, Lines 58-65). Clearing the code buffer 1208 is not the same as clearing a plurality of sub-regions as recited in claims 15, 20 and 21.

Accordingly, *Maeda* does not disclose, teach, or suggest the above-recited features of claims 15, 20 and 21. Therefore, when in combination with *Diehl* in view of *Deering*, the proposed combination does not disclose, teach or suggest at least the feature of “a location of a region of memory”, upon which “subdividing said memory region into a plurality of sub-regions; and writing said clear data concurrently to each of said plurality of sub-regions” occurs, as recited in claims 15, 20 and 21. Therefore, a prima facie case establishing an obviousness rejection by of *Diehl* in view of *Deering*, in further view of *Maeda*, has not been made. Thus, claims 15, 20 and 21 are not obvious under proposed combination of *Diehl* in view of *Deering*, in further view of *Maeda*, and the rejection should be withdrawn.

Applicants respectfully note that the Office Action at page 6 recites to lines 23-40 of *Maeda*. However, no column number is provided in the Office Action to indicate the precise location of the lines 23-40 in *Maeda*. Applicants could not find any relevant teachings in *Maeda* located at lines 23-40 in the various columns of the *Maeda* specification. If the Examiner believes that there are relevant teachings in *Maeda* at the above-described lines, Applicants request further clarification in the next Office Action.

c. Claims 16-19 and 22-23


Because independent claims 15 and 21 are allowable over the proposed combination of *Diehl* in view of *Deering*, in further view of *Maeda*, dependent claims 16-19 (which depend upon claim 15), and dependent claims 22-23 (which depend upon claim 23), are allowable as a matter of law for at least the reason that these dependent claims contain all elements of their respective independent base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-23 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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